

District I  
1625 N. French Dr., Hobbs, NM 88240  
District II  
1301 W. Grand Avenue, Artesia, NM 88210  
District III  
1000 Rio Brazos Road, Aztec, NM 87410  
District IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy Minerals and Natural Resources  
Conservation Division  
1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-101  
May 27, 2004

Submit to appropriate District Office

☐ AMENDED REPORT

### APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

<sup>1</sup> Operator Name and Address Southwestern Energy Production Company 2350 N. San Houston Parkway East Houston, TX 77032		<sup>2</sup> OGRID Number 148111
<sup>3</sup> Property Code 25212		<sup>4</sup> API Number 30-015-337923
<sup>5</sup> Property Name No Bluff State Com		<sup>6</sup> Well No. 4
<sup>9</sup> Proposed Pool 1 Red Lake; Queen-Grayburg, San Andres 51300		<sup>10</sup> Proposed Pool 2

#### <sup>7</sup> Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	36	17S	27E	E	1765	North	330	West	Eddy

#### <sup>8</sup> Proposed Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

#### Additional Well Information

<sup>11</sup> Work Type Code P	<sup>12</sup> Well Type Code O	<sup>13</sup> Cable/Rotary	<sup>14</sup> Lease Type Code S	<sup>15</sup> Ground Level Elevation 3583
<sup>16</sup> Multiple No	<sup>17</sup> Proposed Depth	<sup>18</sup> Formation San Andres	<sup>19</sup> Contractor	<sup>20</sup> Spud Date
Depth to Groundwater		Distance from nearest fresh water well		Distance from nearest surface water
Pit: Liner: Synthetic <input type="checkbox"/> _____ mils thick Clay <input type="checkbox"/> Pit Volume: _____ bbls Drilling Method:				
Closed-Loop System <input type="checkbox"/> Fresh Water <input type="checkbox"/> Brine <input type="checkbox"/> Diesel/Oil-based <input type="checkbox"/> Gas/Air <input type="checkbox"/>				

#### <sup>21</sup> Proposed Casing and Cement Program

Hole Size	Casing Size	Casing weight/foot	Setting Depth	Sacks of Cement	Estimated TOC
	16"	Conductor	40'	9 sx ready mix	surface
12.25	8-5/8"	32	475'	305 sx	surface
7.785	5-1/2"	15.5	3652	900 sx	surface

<sup>22</sup> Describe the proposed program. If this application is to DEEPEN or PLUG BACK, give the data on the present productive zone and proposed new productive zone. Describe the blowout prevention program, if any. Use additional sheets if necessary.

Plugback and isolate the Yesa/Glorieta from 3007'-3318' by setting a bridge plug @ 2950'. Complete in the San Andres (perfs from 2040'-2822') by performing a two stage acid & sand fracture stimulation. (Standard 3000 psi BOPs and /or 5000 psi frac valve will be used during plugback operations.)

35' cement atop BP. Baye

Operations are to begin, rig to move on location, Monday, November 6<sup>th</sup> with an estimated perforation date of Thursday, November 9<sup>th</sup>.

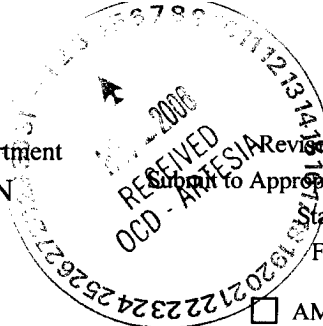
No earthen pit will be dug. Operations will be using a steel pit.

Weak Only - Operator to comply w NMOCB Rule 19.15.3.64 E(2)

<sup>23</sup> I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that the drilling pit will be constructed according to NMOCB guidelines <input type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		OIL CONSERVATION DIVISION	
Printed name: Martha C. Howard		Approved by:	
Title: Staff Regulatory Analyst		BRYAN G. ARRANT DISTRICT II GEOLOGIST	
E-mail Address: Martha_Howard@SWN.com		Approval Date: NOV 08 2006 Expiration Date: NOV 08 2007	
Date: 11.2.2006	Phone: 281-618-4887	Conditions of Approval Attached <input type="checkbox"/>	

**District I**  
1625 N. French Dr., Hobbs, NM 88240  
**District II**  
1301 W. Grand Avenue, Artesia, NM 88210  
**District III**  
1000 Rio Brazos Rd., Aztec, NM 87410  
**District IV**  
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico  
Energy, Minerals & Natural Resources Department  
**OIL CONSERVATION DIVISION**  
1220 South St. Francis Dr.  
Santa Fe, NM 87505



Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number 30-015-337973	<sup>2</sup> Pool Code 51300	<sup>3</sup> Pool Name RED LAKE; QUEEN-GRAYBURG; SAN ANDRES
<sup>4</sup> Property Code 25212	<sup>5</sup> Property Name NO BLUFF STATE COM	<sup>6</sup> Well Number 4
<sup>7</sup> OGRID No. 148111	<sup>8</sup> Operator Name SOUTHWESTERN ENERGY PRODUCTION COMPANY	<sup>9</sup> Elevation 3583

<sup>10</sup> Surface Location

UL or lot no. E	Section 35	Township 17S	Range 27E	Lot Idn E	Feet from the 1765	North/South line NORTH	Feet from the 330	East/West line WEST	County EDDY
--------------------	---------------	-----------------	--------------	--------------	-----------------------	---------------------------	----------------------	------------------------	----------------

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
---------------	---------	----------	-------	---------	---------------	------------------	---------------	----------------	--------

<sup>12</sup> Dedicated Acres	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.
-------------------------------	-------------------------------	----------------------------------	-------------------------

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

<sup>16</sup>  1765' 330'					<sup>17</sup> <b>OPERATOR CERTIFICATION</b> <i>I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.</i>  Signature _____ Date _____ MARTHA C. HOWARD Printed Name 11.2.2006
					<sup>18</sup> <b>SURVEYOR CERTIFICATION</b> <i>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</i>
					Date of Survey _____ Signature and Seal of Professional Surveyor: _____  Certificate Number _____

State of New Mexico

DISTRICT I

1625 N. FRENCH DR., HOBBS, NM 88240

Energy, Minerals and Natural Resources Department

DISTRICT II

1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

1220 SOUTH ST. FRANCIS DR.  
Santa Fe, New Mexico 87505

DISTRICT III

1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV

1220 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number		Pool Code	Pool Name
Property Code	Property Name NO BLUFF		Well Number 4
OGRID No.	Operator Name SOUTHWESTERN ENERGY PRODUCTION COMPANY		Elevation 3583'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	36	17-S	27-E		1765	NORTH	330	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

	<p><b>OPERATOR CERTIFICATION</b></p> <p>I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief.</p> <p>Signature _____</p> <p>Printed Name _____</p> <p>Title _____</p> <p>Date _____</p>	
	<p><b>SURVEYOR CERTIFICATION</b></p> <p>I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.</p> <p>DECEMBER 27, 2004</p> <p>Date Surveyed _____ LA</p> <p>Signature &amp; Seal of Professional Surveyor _____</p> <p>Certificate No. CARY EIDSON 12641</p>	
	<p>04.11.1598</p>	
	<p>12/30/04</p>	

Tubing Detail

GL = 3583'

KB = 7'

X-Mas Tree Top Conn.


@ 508' -- 8-5/8" 32# J-55 Surf. Csg. Cmt'd w/ 305 sx

Glorieta/Yeso perms- 3007-318' (N/C- 50 holes)

@ 3564' -- PBTD

@ 3650' -- 5-1/2" 15.5# J-55 Prod. Lnr. Cmt'd w/ 1000 sx

3652'

Revised		<b>PRESENT COMPLETION</b>		Drawn <b>CJK</b>
		LEASE: <b>No Bluff State Com</b>	WELL: <b>4</b>	<b>11/2/2006</b>
		LOCATION: <b>Illinois Camp</b>		Approved
		COUNTY: <b>Eddy County</b>	STATE: <b>New Mexico</b>	Date
		PRODUCING FORMATION: <b>Glorieta/Yeso</b>		
		 <b>Southwestern Energy Production Company</b>		

Tubing Detail

GL = 3583'

KB = 7'

X-Mas Tree Top Conn.

@ 508' -- 8-5/8" 32# J-55 Surf. Csg. Cmt'd w/ 305 sx

Bridge plug to be set @2950'

San Andres perms- Proposed 2041-823' (N/C- 100 holes)

Glorieta/Yeso perms- 3007-318' (N/C- 50 holes)

@ 3564' -- PBTD

@ 3650' -- 5-1/2" 15.5# J-55 Prod. Csg Cmt'd w/ 1000 sx

3652'

Revised

**PROPOSED COMPLETION**

Drawn

**CJK**

LEASE: No Bluff State Com WELL: 4

**11/2/2006**

LOCATION: Illinois Camp

Approved

COUNTY: Eddy County STATE: New Mexico

PRODUCING FORMATION: Glorieta/Yeso

Date



**Southwestern Energy Production Company**



**Southwestern Energy  
Company**

**Southwestern Energy Production Company  
2350 N. Sam Houston Parkway East  
Suite 300  
Houston, Texas 77032**

# **Hydrogen Sulfide (H<sup>2</sup>S) Contingency Plan**

**For**

**No Bluff #3**

**And**

**No Bluff #4**

## **No Bluff #3 and No Bluff #4**

These wells are open drilling sites. H<sub>2</sub>S monitoring equipment and emergency response equipment will be used within 500' of the zones known to contain H<sub>2</sub>S, including warning signs, wind indicators and H<sub>2</sub>S monitor.

Assumed 100 ppm ROE = 3000' (Radius of Exposure)  
100 ppm H<sub>2</sub>S concentration shall trigger activation of this plan.

### **Escape:**

Escape will be by taking the lease road going west approximately 0.2 miles. Continue past the "Y" intersection approximately 0.1 miles and turn right. Go northwest for approximately 1.0 miles to co. road #225 traveling northeast until the intersection of co. road #204. Travel northwest on co. road #204 until crossing hwy 82. 9.5 west is the town of Artesia.

### **Emergency Procedures**

In the case of a release of gas containing H<sub>2</sub>S, the first responder(s) must isolate the area and prevent entry by other persons into the 100 ppm ROE. Additionally the first responder(s) must evacuate any public places encompassed by the 100 ppm ROE. First responder(s) must take care not to injure themselves during this operation. Company and/or local officials must be contacted to aid in this operation. Evacuation of the public should be beyond the 100 ppm ROE.

All responders must have training in the detection of H<sub>2</sub>S, measures for protection against the gas, equipment used for protection and emergency response. Additionally, responders must be equipped with H<sub>2</sub>S monitors and air packs in order to control the release. Use the "buddy system" to ensure no injuries during the response.

### **Ignition of Gas Source**

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO<sub>2</sub>). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

## Characteristics of H<sub>2</sub>S and SO<sub>2</sub>

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H <sub>2</sub> S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO <sub>2</sub>	2.21 Air = 1	2 ppm	N/A	1000 ppm

## Contacting Authorities

Southwestern Energy Production Company personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the NMOCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Southwestern Energy Production Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

### Southwestern Energy Production Call List      Office      Cellular

Bruce Drummon – Production Foreman.....	505-393-1850.....	505-631-8083
Kurt Butler – Production Engineer ..	281-618-4749.....	713-569-2926
Wilton Townsend – Drilling Consultant.....	281-618-4869.....	713-898-5976
Sonny Bryan – Drilling Manager.....	281-618-4769.....	713-502-4046
Mike McAllister – HSE Manager ....	281-618-4824.....	713-560-0856

## Agency Call List

### Eddy County (505)

#### Artesia

State Police .....	746-2703
City Police.....	746-2703
Sheriff's Office .....	746-9888
Ambulance .....	911
Fire Department .....	746-2701
LEPC (Local Emergency Planning Committee) .....	746-2122
NMOCD.....	748-1283



**Carlsbad**

State Police .....885-3137  
City Police.....885-2111  
Sheriff's Office.....887-7551  
Ambulance.....911  
Fire Department .....885-2111  
LEPC (Local Emergency Planning Committee)..... 887-3798  
US Bureau of Land Management.....887-6544

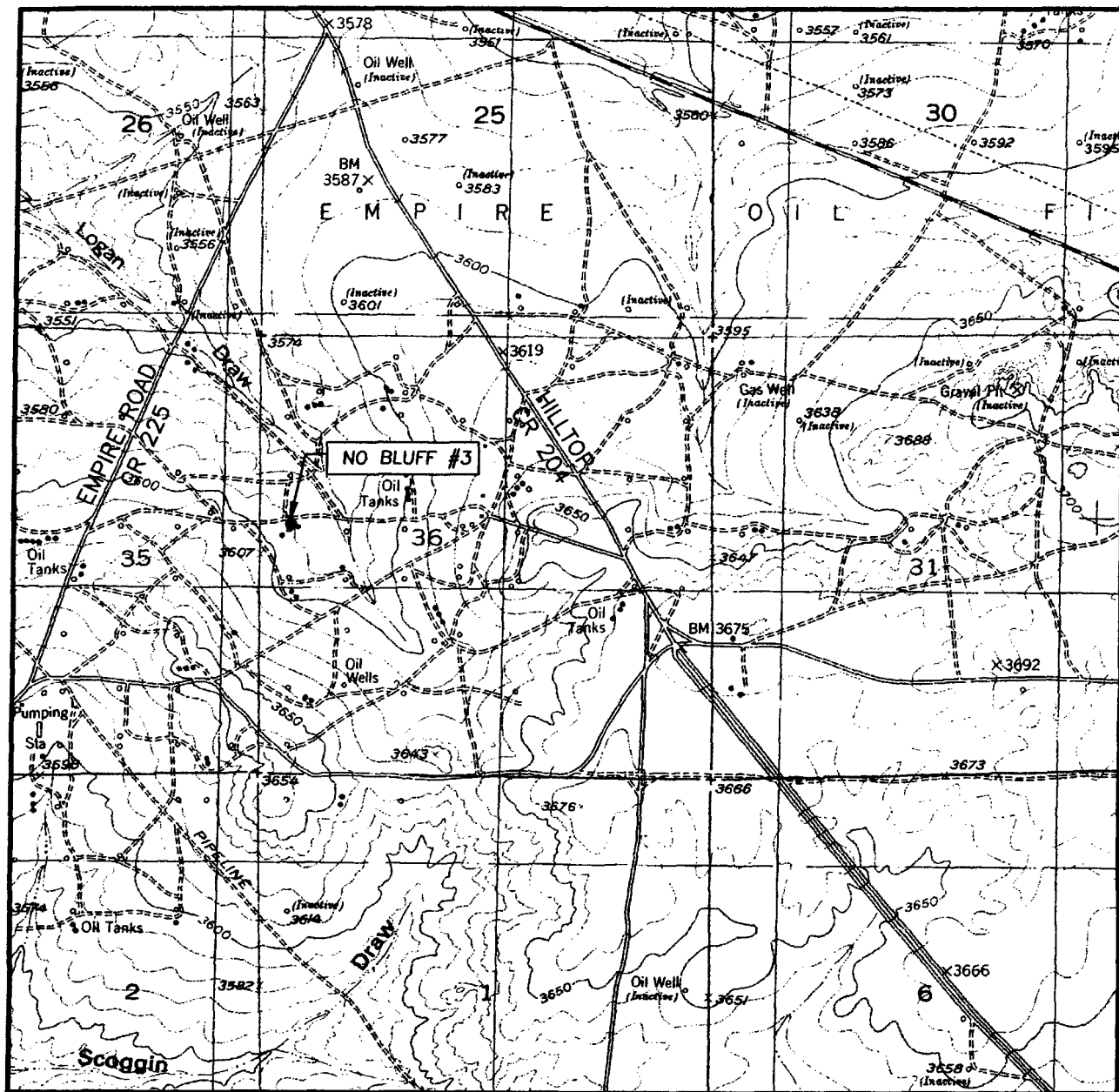
New Mexico Emergency Response Commission (Santa Fe) (505)476-9600  
24 HR .....(505) 827-9126  
National Emergency Response Center (Washington, DC) ...(800) 424-8802

**Other**

Wild Well Control (281) 353-5481  
Boots & Coots IWC 1-800-256-9688 or (281) 931-8884  
Cudd Pressure Control (915) 699-0139 or (915) 563-3356  
Halliburton .....(432) 682-4305  
B. J. Services.....(505) 392-5556  
B.J. Services (505)746-3140  
Schlumberger (505) 748-1391

Flight For Life -4000 24th St, Lubbock, TX .....(806) 743-9911  
Aerocare -Rr 3 Box 49f, Lubbock, TX .....(806) 747-8923  
Med Flight Air Amb 2301 Yale Blvd SE #D3, Albuq, NM .....(505) 842-4433  
S B Air Med Svc 2505 Clark Carr Loop SE, Albuq, NM ....(505) 842-4949

# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
REDLAKE, N.M. - 10'

SEC. 36 TWP. 17-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

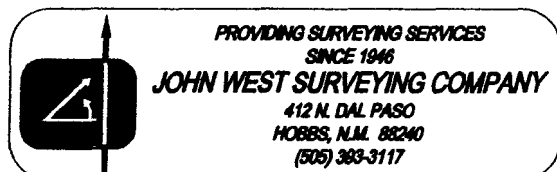
DESCRIPTION 2264' FNL & 366' FWL

ELEVATION 3595'

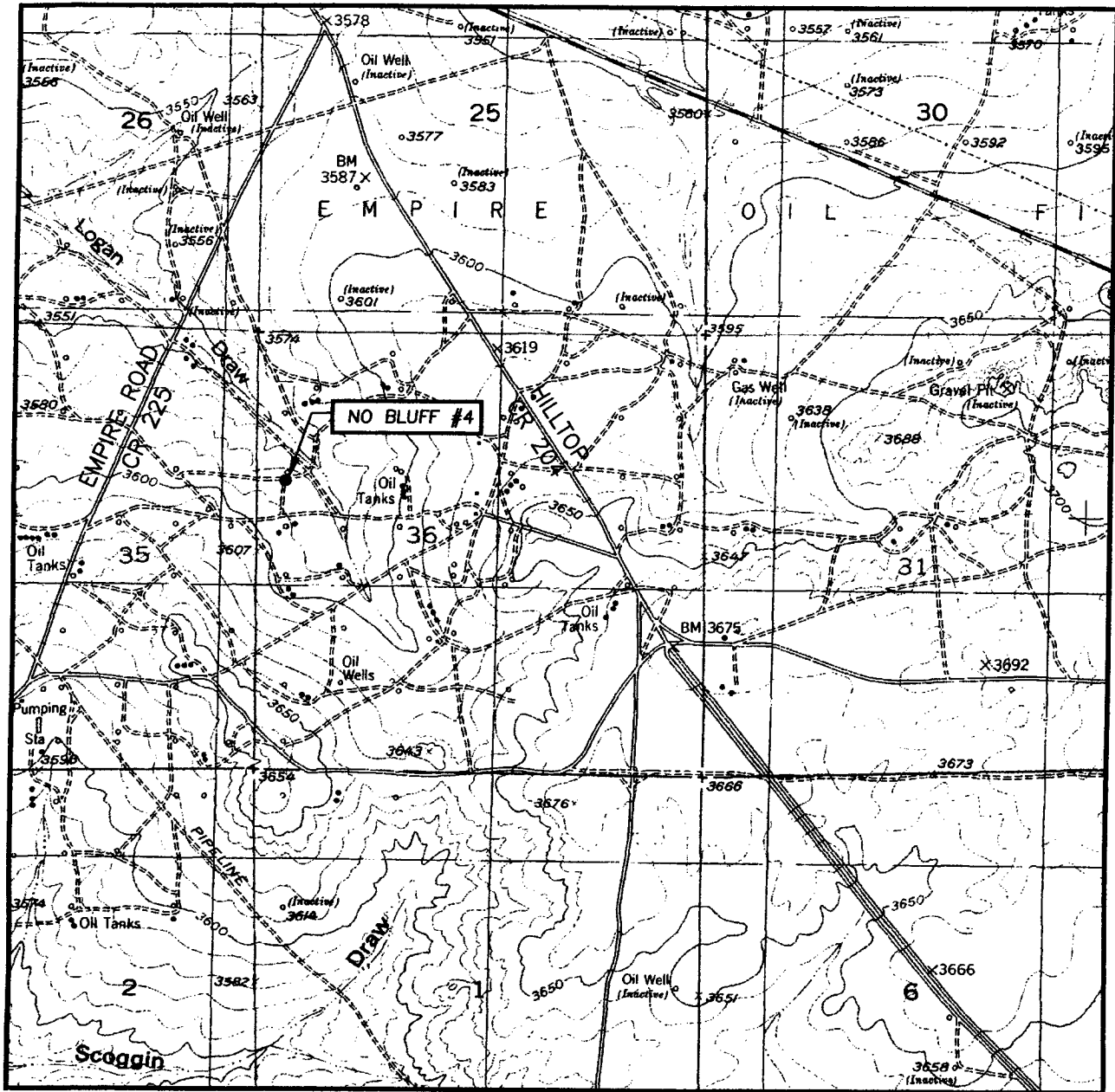
OPERATOR SOUTHWESTERN ENERGY  
PRODUCTION COMPANY

LEASE NO BLUFF

U.S.G.S. TOPOGRAPHIC MAP  
REDLAKE, N.M.



# LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:  
REDLAKE, N.M. - 10'

SEC. 36 TWP. 17-S RGE. 27-E

SURVEY N.M.P.M.

COUNTY EDDY

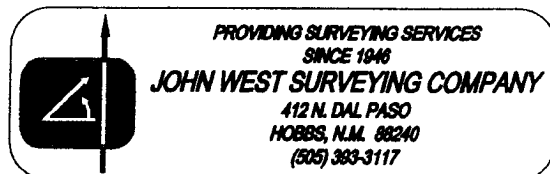
DESCRIPTION 1765' FNL & 330' FWL

ELEVATION 3583'

OPERATOR SOUTHWESTERN ENERGY  
PRODUCTION COMPANY

LEASE NO BLUFF

U.S.G.S. TOPOGRAPHIC MAP  
REDLAKE, N.M.





**Southwestern Energy  
Production Company**

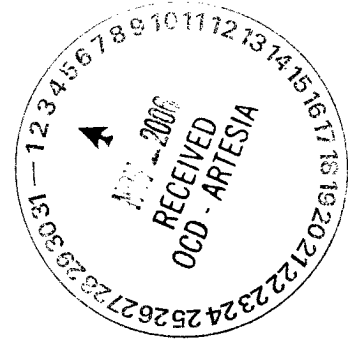
A subsidiary of Southwestern Energy Company

2350 N. Sam Houston Parkway, East,  
Suite 300  
Houston, Texas 77032  
(281) 618-4700 FAX: (281) 618-4758

VIA FEDERAL EXPRESS OVERNIGHT

November 2, 2006

Mr. Bryan Arrant  
State of New Mexico  
Energy, Minerals and Natural Resources  
Oil Conservation Division – District II  
1301 W. Grand Avenue  
Artesia, NM 88210



Dear Mr. Arrant:

SUBJECT: SOUTHWESTERN ENERGY PRODUCTION COMPANY – NO BLUFF STATE COM NO. 4  
API NO. 30-015-33792  
SEC 36-17S-27E  
EDDY COUNTY, NEW MEXICO

Southwestern intends to recomplete the subject well referenced above from the Red Lake; Glorieta Yeso, Northeast Pool (96836) to the Red Lake; Queen-Grayburg; San Andres Pool (51300). For your review the following data is enclosed:

- Form C-101 – to plugback
- Form C-102 – Revised form dated 10/12/2005 with operator signature and revised form dated 06/10/2003 original signed surveyed plat by surveyor
- Wellbore Schematic – current and proposed
- H2S Contingency Plan

Southwestern's Landman, Chuck Cornish, is forwarding a copy of this request to Fairway Resources (previously McQuadrangle, LC) requesting a waiver be granted for the San Andres formation, being a part of the Red Lake; Queen-Grayburg; San Andres Pool.

Should you have questions, please reach me through 281-618-4887 (direct), 281-618-4758 (fax) or Martha Howard@SWN.com.

Respectfully,

SOUTHWESTERN ENERGY PRODUCTION COMPANY

Martha C. Howard  
Staff Regulatory Analyst

MCH

Enclosure



**Southwestern Energy  
Production Company**

A subsidiary of Southwestern Energy Company

**Charles A. Cornish**  
Senior Landman

2350 N. Sam Houston Parkway East  
Suite 300  
Houston, Texas 77032  
(281) 618-4700 FAX: (281) 618-4757

November 2, 2006

Via Facsimile and U. S. Mail  
(817)-416-1949

**Fairway Resources**  
538 Silicon Drive  
Suite 101  
Southlake, Texas 76092

Attention: Joe E. Small

Re: No Bluff No. 4 Well  
SW/4 NW/4 Section 36 T17S, R27E (Unit E)  
Eddy County, New Mexico

Gentlemen:

This is to advise that Southwestern Energy Production Company is preparing to plug back the referenced well from the Yesso/Glorieta formation to San Andres formation at 2,041' feet to 2,821' feet. Therefore the said well will be completed in the Queen/Grayburg/San Andres pool, as defined by the State of New Mexico.

Fairway Resources currently operates two wells completed with said pool. However pursuant to that certain Assignment dated April 27, 2005 Fairway Resources has no rights to the San Andres formation.

Therefore we hereby request that Fairway Resources grant a waiver of any objections in favor of Southwestern Energy Production Company which would allow us to recomplete said well into the San Andres formation.

Enclosed herewith is for your information is a copy of our Application for Plug Back and a copy of said assignment.

Please sign in the space provided below then return a copy hereof to the undersigned via fax at 281-618-4739

Thank you for your assistance in the matter.

No Bluff No. 4 Well  
SW/4 NW/4 Section 36 T17S, R27E (Unit E)  
Eddy County, New Mexico

Very truly yours,

SOUTHWESTERN ENERGY PRODUCTION COMPANY

*Charles A. Cornish*

Charles A. Cornish  
Senior Landman

 We hereby waive any objections as stated above.

Fairway Resources

By:

Name:

Title:

Date:

*Matt Eagleston*

*Matt Eagleston*

*President & CEO*

*11/2/06*

NO. CUMMINS 1. AND 2. Based on the information provided, the above is a true and correct copy of the original document.